Distributed Database

Computer

Computer 1

Shared Folder

File1.txt

Computer 6

Shared folder

File1.txt

Computer 5

Computer

Computer2

Shared Folder

File1.txt

Computer 4

File1.txt

Computer

File1.txt

Computer 3

* Network Neighborhood
* Has to know the IP address or the name of computer where the file exist.

You want a file file1.txt and you don’t know in which computer of the lab, the file1 exist.

File or Data Transparency

* User realize that the file exist in his/her own computer.
* User does not aware of the source of the file.

Abstraction of storage Medium

* Data
* File – txt, bin, exe etc.
* Document

What is file in computer and what are the purposes of using file?

File is container that holds the data. It is logically mapped into the computer.

RAM

Block

Block

Block

Block

Block

Block

File1.txt

Purpose are:

* Store the data into the file
* Back and forth data between RAM and Harddisk

Document

General Purpose and abstract concept for organizing data.

Data Redundancy

Data redundancy means multiple copies of the same data. In case of centralized system, the objective is to reduce redundancy using Normalization.

In case Distributed database, the principal is to introduce redundancy in a strategic way that increases the reliability and availability of the system, however, does not increase the complexity beyond the thresholds value. The case study shows that by default replication factor 3 is very good for the system.